

Amendment to Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

What is Claimed:

1. (Currently Amended) A thermostatic mixing valve comprising:
a valve body having a first fluid inlet, a second fluid inlet and a fluid outlet;;
a mixing chamber located between the respective fluid inlets and the fluid outlet;
a thermostatic element located in or adjacent to the mixing chamber;;
a piston arranged for movement within the valve body in response to the thermostatic element, said piston arranged to throttle the flow of the first fluid into the mixing chamber by varying its position relative to a first fluid seat, said piston also arranged to throttle the flow of the second fluid into the mixing chamber by varying its position relative to a second fluid seat, wherein the second fluid seat is configured to allow for further movement of the piston as a result of continued expansion of the thermostatic element after flow of the second fluid into the mixing chamber is prevented.
2. (Original) A thermostatic mixing valve according to claim 1 wherein the second fluid seat is formed as an elongate portion extending in the direction of the movement of the piston so as to allow the piston to slide along the elongate portion to thereby allow for continued expansion of the thermostatic element.
3. (Original) A thermostatic mixing valve according to claim 2 wherein the elongate portion is formed on the valve body.

4. (Original) A thermostatic mixing valve according to claim 3 wherein an outer peripheral wall of the piston slides along the elongate portion.
5. (Original) A thermostatic mixing valve according to claim 2 wherein the elongate portion is formed on a member located within the valve body.
6. (Currently Amended) A thermostatic mixing valve according to claim 5 wherein an inner peripheral wall of a bore of the piston slides along the elongate portion.
7. (Currently Amended) A thermostatic mixing valve according to claim 1 wherein the first fluid seat is a seat formed in a portion of the valve body.
8. (Previously Presented) A thermostatic mixing valve according to claim 1 further including an adjustment mechanism for adjusting a rest position of the thermostatic element.
9. (Original) A thermostatic mixing valve according to claim 8 wherein the adjustment mechanism is arranged to adjust the positioning of the thermostatic element relative to the piston so that a set temperature of the fluid through the fluid outlet can be varied.
10. (Original) A thermostatic mixing valve according to claim 4 wherein the piston includes a socket for engaging with the thermostatic element.
11. (Previously Presented) A thermostatic mixing valve according to claim 1 further including a mixing tube arranged to direct the flow of first and second fluids onto the thermostatic element.
12. (Original) A thermostatic mixing valve according to claim 11 wherein the mixing tube is configured to seat a trailing end of the thermostatic element.
13. (Original) A thermostatic mixing valve according to claim 12 wherein a leading end of the thermostatic element is arranged to contact a portion of the piston.
14. (Previously Presented) A thermostatic mixing valve according to claim 8 wherein the adjustment mechanism includes a thread arrangement formed on

the periphery of a mixing tube which is arranged to engage with a thread formed in the sidewall of the mixing chamber so that the mixing tube's positioning within the mixing chamber can be adjusted relative to the piston by rotating the mixing tube, wherein the mixing tube is arranged to direct the flow of first and second fluids onto the thermostatic element.

15. (Previously Presented) A thermostatic mixing valve according to claim 8, wherein the adjustment mechanism includes means for varying the size of a mixing tube arranged to direct flow of first and second fluids onto the thermostatic element so that it can be located in one of a series of seats formed in the sidewall of the mixing chamber thereby adjusting the positioning of the mixing tube relative to the piston.

16. (Previously Presented) A thermostatic mixing valve according to claim 8 wherein the adjustment mechanism includes an adjustment pin configured so that an inner portion of the pin is in contact with a trailing end of the thermostatic element.

17. (Original) A thermostatic mixing valve according to claim 16 wherein the adjustment pin includes an outer end which is accessible from the outside of the valve body thereby enabling movement of the pin which results in an adjustment in the positioning of the thermostatic element relative to the piston.

18. (Previously Presented) A thermostatic mixing valve according to claim 16 wherein the adjustment pin is threadedly connected to the valve body of the thermostatic mixing valve.

19. (Previously Presented) A thermostatic mixing valve according to claim 1 further including a check valve mounted adjacent each of the first and second fluid inlets to prevent back flow of fluid through the respective inlets.

20. (Previously Presented) A thermostatic mixing valve according to claim 1 wherein the first fluid inlet is a cold fluid inlet and the second fluid inlet is a hot fluid inlet.

21. (Currently Amended) A method of adjusting the temperature of an outlet fluid through a thermostatic valve, said thermostatic valve comprising a valve body having a first fluid inlet, a second fluid inlet and a fluid outlet; a mixing chamber located between the respective fluid inlets and the fluid outlet; a piston arranged to regulate the flow of the first and second fluids from their respective inlets into the mixing chamber; a thermostatic element located in or adjacent to the mixing chamber; and an adjustment mechanism for adjusting a rest position of the thermostatic element relative to the piston wherein the adjustment mechanism includes a thread arrangement formed on the periphery of a mixing tube which is arranged to engage with a thread formed in the sidewall of the mixing chamber so that the mixing tube's positioning within the mixing chamber can be adjusted relative to the piston by rotating the mixing tube, wherein the mixing tube is arranged to direct the flow of first and second fluids onto the thermostatic element, said method comprising:

- adjusting the adjustment mechanism to modify the rest position of the thermostatic element relative to the piston to thereby change the flow of the first and second fluids into the mixing chamber until the temperature of the outlet fluid through the fluid outlet is at a desired set temperature.

22. (Currently Amended) A thermostatic mixing valve comprising:

- a valve body having a first fluid inlet, a second fluid inlet and a fluid outlet;
- a mixing chamber located between the respective fluid inlets and the fluid outlet;
- a piston arranged to regulate the flow of the first and second fluids from their respective inlets into the mixing chamber;
- a thermostatic element located in or adjacent to the mixing chamber; and
- an adjustment mechanism for adjusting a rest position of the thermostatic element wherein the adjustment mechanism includes a thread arrangement formed on the periphery of a mixing tube which is

arranged to engage with a thread formed in the sidewall of the mixing chamber so that the mixing tube's positioning within the mixing chamber can be adjusted relative to the piston by rotating the mixing tube, wherein the mixing tube is arranged to direct the flow of first and second fluids onto the thermostatic element.

23. (Previously Presented) A thermostatic mixing valve according to claim 17 wherein the adjustment pin is threadedly connected to the valve body of the thermostatic mixing valve.

24. (New) A method of adjusting the temperature of an outlet fluid through a thermostatic valve, said thermostatic valve comprising a valve body having a first fluid inlet, a second fluid inlet and a fluid outlet; a mixing chamber located between the respective fluid inlets and the fluid outlet; a piston arranged to regulate the flow of the first and second fluids from their respective inlets into the mixing chamber; a thermostatic element located in or adjacent to the mixing chamber; and an adjustment mechanism for adjusting a rest position of the thermostatic element relative to the piston wherein the adjustment mechanism includes means for varying the size of a mixing tube arranged to direct flow of first and second fluids onto the thermostatic element so that it can be located in one of a series of seats formed in the sidewall of the mixing chamber thereby adjusting the positioning of the mixing tube relative to the piston, said method comprising:

adjusting the adjustment mechanism to modify the rest position of the thermostatic element relative to the piston to thereby change the flow of the first and second fluids into the mixing chamber until the temperature of the outlet fluid through the fluid outlet is at a desired set temperature.

25. (New) A thermostatic mixing valve comprising:

a valve body having a first fluid inlet, a second fluid inlet and a fluid outlet;

a mixing chamber located between the respective fluid inlets and the fluid

outlet;

a piston arranged to regulate the flow of the first and second fluids from their respective inlets into the mixing chamber;

a thermostatic element located in or adjacent to the mixing chamber; and

an adjustment mechanism for adjusting a rest position of the thermostatic element wherein the adjustment mechanism includes means for varying the size of a mixing tube arranged to direct flow of first and second fluids onto the thermostatic element so that it can be located in one of a series of seats formed in the sidewall of the mixing chamber thereby adjusting the positioning of the mixing tube relative to the piston.

26. (New) A thermostatic mixing valve comprising;

a valve body having a cold fluid inlet, a hot fluid inlet and a mixed fluid outlet;

a mixing chamber located between the respective fluid inlets and the mixed fluid outlet;

a thermostatic element located in or adjacent to the mixing chamber;

a piston arranged for movement within the valve body in response to the thermostatic element, said piston arranged to throttle the flow of the cold fluid into the mixing chamber by varying its position relative to a cold fluid seat, said piston also arranged to throttle the flow of the hot fluid into the mixing chamber by varying its position relative to a hot fluid seat; and

said hot fluid seat comprising an elongate portion on either the valve body or another member, said elongate portion extending in a direction substantially parallel to the direction of movement of the piston so as to allow a part of the piston to slide along the elongate portion after the flow of the hot fluid into the mixing chamber is throttled to prevent hot fluid flow to the mixing chamber thereby allowing for a limited

continued expansion of the thermostatic element.